New claims 47-57 find support in claim 22 (now canceled) which provided for a promoter operably linked to the identified nucleic acids. New claims 58-63 correspond to claims 1-5, and 20-21. New claim 65 finds support at pages 26-27.

Claim 45 was rejected under 35 U.S.C. §112, first paragraph. Claims 1-23 and 45-46 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. Claims 1-23, and 45-46 were variously rejected under 35 U.S.C. §102(a) and/or §102(b) in light of "1994-1995 Promega Catalog page 167" (referred to herein as "Promega"), "1993'1994 New England Biolabs catalog pages 152-153" referred to herein as ("New England Catalog"), and various ESTs designated by Accession numbers as described herein. Applicants respectfully traverse these rejections.

Restriction.

Applicants note that the restriction requirements of paper #124, mailed February 17, 1998 and paper #21 ,mailed February 19, 1999 are withdrawn and the original restriction requirement of paper #12, mailed November 12, 1997 is reinstated, maintained, and made final. Accordingly, Group I, claims 1-23, and 45-46 are pending and under consideration.

Applicants also note that the Examiner indicated that method claims limited to the scope of the allowable product claims will be rejoined and examined at the time product claims are indicated as being allowable.

35 U.S.C. §112, first paragraph.

Claim 45 was rejected under 35 U.S.C. §112, first paragraph, as allegedly containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors had possession of the claimed invention. In particular, the Examiner alleged that the language" said nucleic acid has a length of at least 50 nucleotides" is considered to be new matter. Applicants respectfully traverse this rejection.

The specification, at page 25, line 15 recites that

> "Probes are fragmented to an average fragment length ranging from about 50 bp to about 2000 bp, . . . "

Claim 45, as amended herein, recites a nucleic acid that "has a length greater than about 50 nucleotides. A nucleic acid ranging in length form about 50bp to about 2000 bp clearly has a length greater than about 50 nucleotides. The language at page 25, line 15 would convey to one skilled in the art that Applicants had possession of a nucleic acid of length greater than 50 nucleotides. Claim 45 **does not** present new matter and the rejection under 35 U.S.C. §112, first paragraph, should be withdrawn.

35 U.S.C. §112, second paragraph.

Claims 1-23 and 45-46 were rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite. In particular, the Examiner objected to the terms "specifically hybridizes" in claims 1, 2, 4, 6, 8, 10, 12, 14, 16, 18, and 20 and the term "stringent conditions" in claims 1, 2, 6, 8, 10, 12, 14, 16, 18, and 20. The Examiner also alleged the term "subsequence" in claims 3,4,6-17, and 20-21 lacks proper antecedent basis. Applicants respectfully traverse by argument and amendment.

The claims are amended herein to eliminate the terms "specifically" and "subsequence" thereby obviating the Examiner's first and third rejection. With respect to the term "stringent conditions", Applicants have expressly defined such conditions in the claim thereby obviating the Examiner's second rejection. Accordingly, the rejections under 35 U.S.C. §112, second paragraph, should be withdrawn.

35 U.S.C. §102.

Claims 1-23, and 45-46 were variously rejected under 35 U.S.C. §102(a) and/or §102(b) in light of "1994-1995 Promega Catalog page 167" (referred to herein as "Promega"), "1993'1994 New England Biolabs catalog pages 152-153" referred to herein as ("New England Catalog"), and Accession numbers as follows:

Item 10:	N32481, N93893, or G11697	(SEQ ID NO: 4);
Item 11:	H16953, 16954, or H12950	(SEQ ID NO:5);
Item 12:	H40682	(SEQ ID NO:6);

Item 13:	G27410, or G25553	(SEQ ID NO:7);
Item 14:	N78571	(SEQ ID NO:8);
Item 15:	N70546	(SEQ ID NO:9 and 10);
Item 16:	WO5407	(SEQ ID NO:10);

In particular, the Examiner alleged that Promega discloses dNTPs that are the same as the claimed nucleic acid molecules. The Examiner also alleged that New England Biolabs Catalog discloses promoter sequences operably linked to single nucleotide residues and hence anticipates claim 22. The Accession numbers were cited for sequences that allegedly anticipate the claimed sequences as indicated above. Applicants respectfully traverse this rejection by argument and amendment.

The Examiner is respectfully reminded that in order to make a *prima facie* case of anticipation, all limitations of the claims must be found in the cited reference or "fully met by it". *Kalman v Kimberly-Clark Corp.*, 218 USPQ 781, 789 (Fed. Cir. 1983). Applicants explain below that the cited art fails to meet critical limitations of the claims as amended herein.

Claims 47-57 (promoter operably linked to the sequences).

New claims 47-57 (corresponding to claim 22, now canceled) are not anticipated by the cited art. Applicants note that the New England Biolabs reference is the only reference cited against claim 22. Claim 22 was directed to an isolated nucleic acid comprising a promoter attached to a sequence of claim 1. Claim 22 has now been drafted as claims 47-57 (separate claims for each sequence).

The New England Biolabs reference **does not** disclose the sequences of this invention operably linked to a promoter. To the contrary, as recognized by the Examiner, the New England Biolabs reference allegedly only identifies nucleotide triphosphates (dNTPs) attached to a promoter. In contrast, the claims of the present invention expressly recite:

> "47. An isolated nucleic acid molecule comprising a promoter operably linked to a **polynucleotide** sequence selected from the group consisting of . . . " (*see, e.g.,* claim 47)

A polynucleotide is, by definition, a polymer made of multiple nucleotides. **It is not a nucleotide triphosphate.** In addition, nucleic acids are typically defined as "polymers of nucleotides", not as a single nucleotide. Thus, for example, the Dictionary of Microbiology and Molecular Biology, 2nd Ed. (Singleton and Sainsbury, eds) John Wiley & Sons, N.Y. defines a nucleic acid as:

> A polymer of nucleotides in which the 3' position of one nucleotide sugar is linked to the 5' position of the next by a phosphodiester bridge.

A nucleotide triphosphate is simply **not** a polynucleotide. Similarly it is not a nucleic acid. The New England Biolabs reference fails to identify any of the polynucleotides acid sequences of the presently claimed invention. The Biolabs reference thus fails to provide all the limitations of claims 47-57 and, accordingly, Applicants believe claims 47-57 are allowable over the art currently of record.

New claims 58-63 (SEQ ID NOs 2, 3, and 12).

New claims 58-65 correspond to previous claims 1-5, and 20-21 and are directed to nucleic acid comprising sequences of SEQ ID NO: 1, SEQ ID NO: 2, and SEQ ID NO: 12 and sequences that hybridize thereto under stated conditions. Applicants note that the only references cited against nucleic acids comprising these sequences are the Promega reference and the New England Biolabs reference.

As recognized by the Examiner the Promega reference and the New England Biolabs reference both disclose nucleotide triphosphates, not polynucleotides. These references, however, **do not** identify **poly**nucleotides. As explained above, nucleotide triphosphates (monomers) are simply not polynucleotides (polymers). The Promega and Biolabs references fail to provide all the limitations of claims58-63 and, accordingly, Applicants believe these claims are allowable over the art currently of record.

Claims 1, 6-19,and 23 (SEQ ID NOs 4-10).

Claims 1, 6-19, and 23 (corresponding to SEQ ID NOS: 4-10) are directed to **labeled** probes. The art cited by the Examiner (see accession numbers above) only identifies

expressed sequence tags (ESTs) having various degrees of similarity to the presently claimed sequences. The sequences cited by accession number **are not labeled sequences** and the accession number citations therefore **do not** provide all the limitation of the claims.

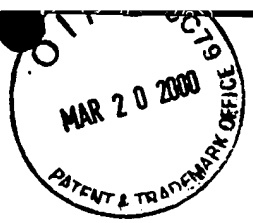
Moreover, as explained above, the Promega reference and the New England Biolabs reference **do not** disclose **poly**nucleotides as recited in the pending claims. The cited art therefore **does not** provide all the limitations of the invention claimed in claims 1, 6-19, and 23 and the rejection of these claims under 35 U.S.C. §102 should be withdrawn.

35 U.S.C. §101.

Claims 3, 5, 7,9, 11, and 13 were rejected under 35 U.S.C. §101 as allegedly claiming the same invention as that of claims 1-7 of prior U.S. Patent No: 5,892,010. This is a "same claim" type double patenting rejection.

Claims 1, 6-19, and 23, as amended herein are directed to labeled nucleic acids, while claims 1-7 of the 5,892,010 patent are not. Claim 8 and 9 of the '01o patent are directed to labeled nucleic acid molecules, but the molecules are those of SEQ ID NOS: 2-7, while the labeled molecules of claim 1, as amended herein are SEQ ID NOS 2-10. The claims, as amended herein, are of different scope than the claims in the 5,892,010 patent. The rejection under 35 U.S.C. §101 is therefore improper and should be withdrawn.

Claims 1-2, 4, 6, 8, 10, 12, 16, 18, 20, 22-23, and 44-45 were rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 1-9 of U.S. Patent 5,892,010. Claims 1-23 and 44-45 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly unpatentable over claims 1-21 and 25-29 of copending Application No: 08/785,532. Applicants will provide a Terminal Disclaimer obviating these rejections upon an indication of otherwise allowable subject matter.



In view of the foregoing, Applicant believes all claims now pending in this application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (415) 248-5500.

Dated: March 13, 2000.

Respectfully submitted,

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